Blumberg No. 5113
PLAINTIFF'S EXHIBIT
USG-155

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. 82062 DATE 9-13-60

SUBJECT Audicote 15 09020F2 Sp. Wh.

School job 81st & Mansfield
Complaint "Flaking" -
Actually Forman concerned about
Fissuring - Due to too thick an
application 7/16 - 5/8" in one coat -
Architect specified 3/4"
Told no danger of bond Failure -
Apply skim coat (after complete drying) - Level - & Spray
Finish
Small sample checked at
Lab.
200g @ 240a (480a) 70° water
2x4 cyl wt - 143 - 43.1 lb/ft³ Slump 11/16"
Loose bulk

Good workability
1/2" panel on R/L - No objectionable
Fissuring -
5 oz Dixie cup sample - 1/16" shrinkage

Revisited job on 10-6
using 09240F Aud-13 on second
Floor - Hand application - Mixerman
says he's using 48 qts water per
bag - Mixing Time observed - 10 Min.
Mixed mortar from box checked
for W.M.W. with spring scale
& 5 oz Dixie Cup sample

- OVER

PENGAD-Bayonne, N. J.
PLAINTIFF'S EXHIBIT
47(2)

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. _____ DATE _____

SUBJECT _____

	(Gallon Mix) Fresh Mortar	Mortar standing in box	
Net wt - 5 oz Dixie	110 g	110 g	
Wet Density lb/ft³	45.1	45.1	
2×4 cyl. slump	1/2"	7/16"	
2 Dixie cup samples Taken back to Lab & placed in 110° Drier			
Gross wt wet 10-6	114	115	Mortar had Fissured unlike cry Lab. Sam. i.e. no shrinkage From sides of cup - but one [illegible] Fissure 1/4" wide [illegible] center of cup. Mortar is very sticky
10-7	82	83	
10-10	49	50	
10-11	42	43	
10-12	36	37	
10-17	36	37	
wt. cup - g's	4	4	
Net wt water - g's	78	78	
Net wt. Plaster - g's	32	33	
Consistency	244 cc	236 cc	
	240 cc	45.5 pf [illegible]	

PLAINTIFF'S EXHIBIT 1647(3)

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. 82062 DATE 10-7-60

SUBJECT Duplicate - Job Fissuring

In order to duplicate the fissur reported on the previous page - we Dixie cup samples of job mortar were placed in the Drier Mixe were made using Aud 13 - sp. wh. From N. Bri. 09140N41

Hand Mix in Stainless steel bow using a minimum of mixing - slow turning to simulate a job mixer.

		CHGO WATER	SAT. Gyp Water	
	g's	300	300	
	Water - cc	690	690	
	Consis.	230	230	
	Start	10 47	10 54	
1.	Cylwt & Slump - Fresh	166 - 3/4	164 - 3/4	
2.	" " " 11 10	163 - 5/8	151 - 7/8	with 1 min additi slow turning by han
3.	" " " 12 16	167 - 3/8	156 - 5/8	no additional
4.	" " " 1 05	170 - 5/16	160 - 1/2	" "
5.	" " " 3 00	149 - 1/2	— —	water added to r Mix - Mixed 2 Min. or
6.	" " " 4 00	— —	169 - 3/8	No additional M

Sat. Gyp. Mix ~~[illegible]~~ is less plastic the chgo. water mix - 5 cc Dixie cup sample Ta of each of the cylinder wt. samples spread to top of cup - & placed in 110°

None of the sat. gyp. samples fiss. all shrank down & away from edge of cup.

Sample	(1)	Shrinkage 3/16 No Fissures	3/16 No Fissures	(5)	Shrinkage 3/16 Fissure - 1/4" x 1/16 x 1
	(2)	1/8" Fissure 1/16" x 1 1/4"	3/16 No Fissures		
	(3)	1/8" Fissure 1/16" x 1 1/4"	3/16 No Fissures	(6)	3/16" No Fissu
	(4)	3/16" Fiss. 1/16" x 1 1/4"	3/16 No Fissures		

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. 82062 DATE 10-24-60

SUBJECT Audicote 13 - Screen Analysis

500 cc 5 Min on Sturtevant

SAMPLE		Ft. Dodge 08080F25 Bag (1)	Ft. Dodge 08080F25 Bag (2)	Ft. Dodge 09060F5	New Brighton 09060N9 Bag (1) SP White
Loose Bulk Density Lb/Ft3 1000 cc grad.					13.42
Loose Bulk Density Screen Sample - 500 cc		13.00	12.12	12.47	12.85
% by	+8	—	—	—	—
WT	-8+16	13.94	17.50	12.55	12.24
	-16+30	29.95	27.84	27.50	31.80
	-30+50	21.70	21.55	24.10	22.76
	-50+100	11.53	12.68	12.95	13.52
	-100	23.08	20.43	22.90	19.78
% by	+8	—	—	—	—
Vol.	-8+16	14.42	19.20	11.42	12.87
	-16+30	35.58	34.35	32.38	36.62
	-30+50	29.82	27.25	32.38	27.71
	-50+100	12.50	12.13	14.30	14.86
	-100	7.68	7.07	9.52	7.94
Lb./Ft3	+8	—	—	—	—
each	-8+16	12.00	11.16	13.00	12.40
Fraction	-16+30	10.85	9.91	10.06	11.10
	-30+50	9.02	9.66	9.81	10.56
	-50+100	11.44	12.80	10.74	11.65
	-100	37.15	36.60	28.48	32.00

PLAINTIFF'S EXHIBIT 1647(4)

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. _____ DATE _____

SUBJECT _____

N. Brighton C926ONE Bag (2) Sp. white	New Brighton C926ONE Bag (1)	New Brighton C926ONE Bag (2)	New Brighton C926ONE Bag (3)	New Brighton C914N41 Sp. white	New Brighton C914N41 Sp. white
13.79	13.45	13.17	12.73		
13.10	12.73	13.35	12.85	13.23	13.23
—	—	—	—	—	—
10.30	8.64	9.10	10.05	6.18	8.15
32.13	35.52	29.50	32.30	29.34	29.33
24.15	23.64	25.10	23.02	28.19	26.99
14.22	11.98	13.00	11.62	15.96	14.28
19.30	20.22	23.30	23.02	20.33	21.25
—	—	—	—	—	—
9.71	8.82	8.66	9.71	11.16	8.79
37.91	41.20	35.57	38.82	30.64	29.22
30.11	29.41	31.72	28.18	35.32	37.00
14.61	12.75	14.43	13.59	14.88	16.21
7.76	7.84	9.62	9.70	8.00	8.78
—	—	—	—	—	—
13.73	12.50	13.31	12.67	6.75	18.0
10.97	11.02	10.62	10.32	11.70	12.7
10.40	10.57	10.00	10.18	9.7	9.2
12.35	12.00	11.41	10.6	13.1	17.9
31.38	32.70	30.35	29.40	31.0	29.4

PLAINTIFF'S EXHIBIT 1647(5)

UNITED STATES GYPSUM COMPANY RESEARCH LABORATORIES

PROJECT NO. 82062 DATE 10-5

SUBJECT Effect of Drying on Fissuring

PLAINTIFF'S EXHIBIT 1647(6)

Using N Bri Aud B [illegible] 35 [illegible]
For other Tests on this [illegible] see [illegible]
Audicote Mixed on Hobart For 1/2 Min
S.S. at 265 cc to approach job
Consistency
Extra dopenol added to one
batch: New Brighton is using 8 oz per
~~[illegible]~~ Bulletin batch or .5 lb / 400 lb This
equiv to 1.25 g / 1000 g

	As Rec'd	+ Dop. to 1 lb/Bu. Batch
g's plaster	1000	1000
Water	2650	2650
Consistency	265	265
2x4 cyl wt.	162	159
Slump	1 1/4"	1 1/2"

3 1/2" panels on R/L & 3 Dixie cup samples
Made of each & 1 set each placed at ~~[illegible]~~
1. R.T.
2. 110° Drier.
3. Tenney Cabinet, set at 70° - 90% + R.H.
R.T. samples at R.T. 1 week & then
placed in 110° Drier
Tenney samples in Tenney for 2 weeks
& then placed in Drier. After 2 weeks
in Tenney they had Fissured but
were still damp to the touch.

PLAINTIFF'S
EXHIBIT
1647(7)

UNITED STATES GYPSUM COMPANY
RESEARCH LABORATORIES
No. 1331

1331

PLAINTIFF'S EXHIBIT
1647(8)

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